



Brian Bjerke, MD

## Clavicle Fracture- Open Reduction Internal Fixation Post-Operative Protocol

---

### Phase I – Maximum Protection- Passive ROM (Weeks 0 to 4):

- Goals:
  - Reduce inflammation
  - Decrease pain
  - Postural education
- Restrictions/Exercise Progression:
  - Sling for 1-2 weeks post-op, then as needed for comfort only
  - PROM at the shoulder okay
    - No AROM at the shoulder x4 weeks
  - AROM at the elbow, wrist and hand okay
  - Ice and modalities to reduce pain and inflammation
  - Cervical ROM and basic deep neck flexor activation (chin tucks)
  - Passive biceps x6 weeks
  - Encourage walks and low intensity cardiovascular exercise to promote healing
- Manual Intervention:
  - Soft tissue mobilization- effleurage to forearm and upper arm as needed

### Phase II – Progressive Stretching and Active ROM (Weeks 4 to 6):

- Goals:
  - Discontinue sling as instructed
  - Postural education
  - Begin AROM- full all planes
- Exercise Progression:
  - Progress to full range of motion flexion and external rotation as tolerated
    - Use a combination of wand, pulleys, wall walks or table slides to ensure compliance.
  - Gradual introduction to internal rotation shoulder extensions (stick off back)
  - Serratus activation; ceiling punch (weight of arm) may initially need assistance
  - Sub-maximal rotator cuff isometrics
  - Scapular strengthening – prone scapular series (rows and l's)

- Emphasize scapular strengthening under 90°
- External rotation on side (no resistance)
- Sub-maximal isometrics
- Cervical ROM as needed to maintain full mobility
- DNF and proper postural positioning with all RC/SS exercises
- Low to moderate cardiovascular work
  - May add elliptical but no running until 6 weeks
- Manual Intervention:
  - Soft tissue mobilization- global shoulder and CT junction
  - Scar tissue mobilization
  - Graded GH mobilization
  - ST mobilizations
  - Gentle CR/RS for ROM and RC-SS activation

### **Phase III – Strengthening Phase (Weeks 6 to 12):**

- Goals:
  - Full AROM
  - Normalize GH/ST arthro-kinematics
  - Activate RC/SS with isometric and isotonic progression
- Exercise Progression:
  - Continue with combined passive and active program to push full ROM
  - Internal rotation with thumb up back and sleeper stretch
  - Continue with ceiling punch adding weight as tolerated
  - RC isotonic at 0 and 90° as strength permits
  - Advance prone series to include T's and Y's as tolerated
  - Add seated rows and front lat pulls
  - Biceps and triceps PRE
  - Scaption; normalize ST arthro-kinematics
  - CKC progression – Quadruped, ball compression, counter weight shift, knee scapular push-ups, knee push-ups; all as tolerated
    - Therapist directed RS and perturbations in quadruped – bilateral progressing to unilateral-tri pod position.
  - 8-10 weeks – gym strengthening program to include chest fly and pressing motions
  - Supine progressing to standing PNF patterns, with resistance as appropriate
- Manual Intervention:
  - STM and Joint mobilization to CT junction, GHJ and STJ as needed
  - CR/RS to gain ROM while respecting repaired tissue
  - Manual perturbations
  - PNF patterns

## **Phase IV – Advance Strengthening and Plyometric Drills (Weeks 12 to 16):**

- PRE/PSE:
  - Full range of motion all planes – emphasize terminal stretching.
  - Advance strengthening at or above 90° with prone or standing Y's and 90/90 as scapular control and ROM permit. Patient health, physical condition and goals/objectives determine.
  - Gym strengthening program; gradual progression with pressing and overhead activity
  - Progress closed kinetic chain program to include push-up progression beginning with counter, knee then – gradual progression to full as appropriate
  - Initiate plyometric and rebounder drills as appropriate

### Return to Sports Program:

- Continue to progress RC and scapular strengthening program.
- Continue with closed chain quadruped perturbations; add open chain as strength permits
- Advance gym strengthening program
- RTS testing for interval programs using microfet dynamometer
- Follow-up examination with the physician (3-4 months) for release to full activity

### Manual Intervention:

- STM and Joint mobilization to CT junction, GHJ and STJ as needed
- CR/RS to gain ROM while respecting repaired tissue
- Manual perturbations
- PNF patterns

\*Please feel free to contact Dr. Brian Bjerke's office with any questions or concerns. Dr. Bjerke's care coordinator Andria Larson is available by phone at 952-456-7095.